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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,812	04/24/2006	Nobuyuki Kojima	CANO:336	9042
37013 7590 06/26/2008 ROSSI, KIMMS & McDOWELL LLP. P.O. BOX 826 ASHBURN, VA 20146-0826			EXAMINER ROSENAT, DEREK JOHN	
			ART UNIT 2834	PAPER NUMBER
			MAIL DATE 06/26/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/576,812

**Applicant(s)**

KOJIMA ET AL.

**Examiner**

Derek J. Rosenau

**Art Unit**

2834

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 10-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-8, 10, 11, 13-16 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 3 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings were received on 8 April 2008. These drawings are accepted.

### *Claim Objections*

2. Claims 1 and 11 recite the limitation "the another surface". There is insufficient antecedent basis for this limitation in the claim.
3. Claim 19 is objected to because of the following informalities: the language "among the three of recessed parts" is grammatically incorrect. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 4-8, 10, 11, 13-16, and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Maruyama et al. (US 2005/0104476).

The applied reference has a common inventor and assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e)

might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

6. With respect to claim 1, Maruyama et al. discloses a vibration wave driven apparatus (Fig 7) comprising: a driven member (item 33); a vibrator (Fig 7) comprising: an elastic member (item 31) having one surface opposed to said driven member, and another surface (Fig 7), said elastic member having a plurality of spaced contact parts (item 31-1) formed on the one surface and disposed in contact with said driven member formed of a single member (Fig 7); and an electromechanical conversion element (items 30) joined to the another surface of said elastic member (Fig 7), wherein said elastic member has at least one cutout (item 31-3) that extends completely through said elastic member to expose part of said electromechanical element at a location where the another surface of said elastic member is joined to said electromechanical conversion element (Fig 7), wherein portions of said elastic member adjacent to said cutout form the spaced contact parts (Fig 7), and wherein said elastic member is disposed in contact with said driven member at said contact parts (Paragraph 91).

7. With respect to claim 2, Maruyama et al. discloses a vibration wave apparatus according to claim 1, wherein said elastic member has a second portion extending laterally away from said driven member (item 31-2), said second portion being flush with said spaced contact parts (Fig 7).

Art Unit: 2834

8. With respect to claim 4, Maruyama et al. discloses a vibration wave apparatus according to claim 1, wherein said electromechanical conversion element comprises a laminated piezoelectric element having piezoelectric materials (item 22) and electrode materials (items 23-1, 23-2, and 23-3) alternately laminate one upon another (Fig 5).
9. With respect to claim 5, Maruyama et al. discloses a vibration wave apparatus according to claim 1, wherein said elastic member includes a plurality of second cutouts at a plurality of locations thereof for adjusting vibration characteristics of the vibrator (Fig 7, items 31-4).
10. With respect to claim 6, Maruyama et al. discloses a vibration wave apparatus according to claim 1, wherein said elastic member has at least one supporting part integrally formed thereon, for supporting the vibrator (Fig 7, bottom surface of the vibrator).
11. With respect to claim 7, Maruyama et al. discloses a vibration wave apparatus according to claim 1, wherein said electromechanical conversion element excites said elastic member in a plurality of out-of-plane bending vibration modes having different wavelength directions (Figs 8A and 8B).
12. With respect to claim 8, Maruyama et al. discloses a vibration wave apparatus according to claim 7, wherein said plurality of spaced contact parts are formed in a vicinity of loops of one of the bending vibration modes and in a vicinity of nodes of another one of the bending vibration modes (Paragraph 75).
13. With respect to claim 10, Maruyama et al. discloses a vibration wave apparatus according to claim 1. The claim language "wherein said drive member and said elastic

member form a magnetic circuit" is a functional limitation, and does not, by itself, define further structure. As Maruyama et al. discloses each of the claimed structural elements, it would inherently perform the same function, and the drive member and elastic member would form a magnetic circuit.

14. With respect to claim 11, Maruyama et al. discloses a vibrator (Fig 7) comprising: an elastic member (item 31) having one surface opposed to said driven member , and another surface (Fig 7), said elastic member having a plurality of spaced contact parts (item 31-1) formed on the one surface and disposed in contact with said driven member formed of a single member (Fig 7); and an electromechanical conversion element (item 30) joined to the another surface of said elastic member (Fig 7), wherein said electromechanical conversion element excites said elastic member in a plurality of out-of-plane bending vibration modes having different wavelength directions (Figs 6A and 6B), and wherein said elastic member has at least one cutout (item 31-3) that extends completely through said elastic member to expose part of said electromechanical element at a location where the another surface of said elastic member is joined to said electromechanical conversion element (Fig 7), wherein portions of said elastic member adjacent to said cutout form the spaced contact parts (Fig 7), wherein said at least one cutout is configured to be opposed to a driven member (item 33), and wherein said elastic member is configured to be disposed in contact with the driven member at said contact parts (Paragraph 91).

Art Unit: 2834

15. With respect to claims 13-16, the subject matter therein is the same as that of claims 4-6, and 8 respectively; therefore, claims 13-16 are anticipated by Maruyama et al. for the same reasons as above.

16. With respect to claim 18, Maruyama et al. discloses a vibration wave driven apparatus (Fig 7) comprising: a driven member (item 33); and an elastic member having an electromechanical conversion element (item 30) joined to one surface thereof (Fig 7), wherein another surface thereof of said elastic member has a plurality of first ridge parts (item 31-2) extending along a driven direction of said driven member (Fig 7) and at least one second ridge part (item 31-1) connecting said first ridge portions to each other through a plurality of recessed parts (items 31-2 and 31-4), wherein the plurality of recessed parts are interposed between the plurality of first ridge parts (Fig 7), and at least one second ridge part is interposed between the two or more recessed parts (Fig 7), wherein said plurality of first ridge parts are identical in height with the at least one second ridge part (Fig 7), and wherein said driven member contacts the at least one second ridge without contacting said first ridge parts (Fig 7).

17. With respect to claim 19, Maruyama et al. discloses a vibration wave driven apparatus according to claim 18, wherein three of the recessed parts are arranged side by side in the driven direction of said driven member between two of the first ridge parts (Fig 7), and two of the second ridge parts form boundaries among the three of recessed parts (Fig 7).

18. With respect to claim 20, Maruyama et al. discloses a vibration wave driven apparatus according to claim 18, wherein said electromechanical conversion element

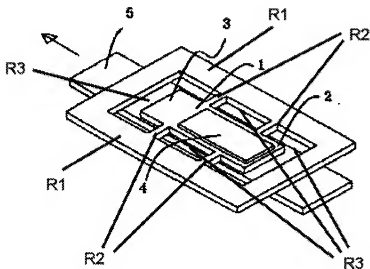
Art Unit: 2834

excites said elastic member in two out-of-plane vibration modes having different wavelength directions to cause said elastic member to make elliptic motions (Figs 6A, 6B, 8A, and 8B).

19. Claims 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by the admitted prior art of Watanabe et al. (JP 2001111128).

20. With respect to claim 18, Watanabe et al. discloses a vibration wave driven apparatus (Fig 1) comprising: a driven member (item 5); and an elastic member having an electromechanical conversion element (item 4) joined to one surface thereof (Fig 7), wherein another surface thereof of said elastic member has a plurality of first ridge parts (see figure below, items R1) extending along a driven direction of said driven member and at least one second ridge part (see figure below, item R2) connecting said first ridge portions to each other through a plurality of recessed parts (see figure below, items R3), wherein the plurality of recessed parts are interposed between the plurality of first ridge parts (see figure below), and at least one second ridge part is interposed between the two or more recessed parts (see figure below), wherein said plurality of first ridge parts are identical in height with the at least one second ridge part (see figure below), and wherein said driven member contacts the at least one second ridge without contacting said first ridge parts (see figure below).





21. With respect to claim 19, Watanabe et al. discloses a vibration wave driven apparatus according to claim 18, wherein three of the recessed parts are arranged side by side in the driven direction of said driven member between two of the first ridge parts (see figure above), and two of the second ridge parts form boundaries among the three of recessed parts (see figure above).

***Allowable Subject Matter***

22. Claims 3 and 12 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

23. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose or suggest "wherein said elastic material is formed from a metal plate material" in combination with the remaining claim elements of claims 3 and 12.

***Response to Arguments***

24. Applicant's arguments, see amendments/arguments, filed 8 April 2008, with respect to the 35.U.S.C. 102(b) rejections in view of Narisawa et al. have been fully considered and are persuasive. The 35 U.S.C. 102(b) rejections of claims 1-8 and 1—16 over Narisawa et al. have been withdrawn.

***Conclusion***

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek J. Rosenau whose telephone number is (571)272-8932. The examiner can normally be reached on Monday thru Thursday 7:00-5:30.

Art Unit: 2834

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Derek J Rosenau  
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/D. J. R./  
Examiner, Art Unit 2834

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